

繁育母牛围产及分娩管理

第五届全国肉牛技术与经济研讨会

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繁育母牛场盈利核心-周期分娩及犊牛成活

目录

1. 繁育母牛围产管理要点
2. 繁育母牛分娩管理
3. 新生犊牛早期护理



繁育母牛围产管理要点

- 围产母牛营养管理
 1. 关注产犊前2月的营养水平
 2. 产后母牛营养水平
 3. 青年母牛和成年围产牛分群饲养

Beef female class	Expected mature weight, lb	Months since calving	Daily dry matter intake, lb	Total Digestible Nutrients, % dry matter	Crude Protein, % dry matter
Lactating cows (20 pounds peak milk production)	1,000	1	24.0	59.6	10.5
		2	25.0	60.9	11.2
		3	25.4	58.6	10.4
	1,200	1	26.8	58.7	10.1
		2	27.8	59.9	10.7
		3	28.4	57.6	9.9
	1,400	1	29.5	58.0	9.8
		2	30.5	59.1	10.3
		3	31.5	56.8	9.6
Lactating 2-year old heifers	1,000	1	20.4	61.0	10.6
		2	21.2	62.1	11.1
		3	21.8	59.8	10.4
	1,200	1	22.9	60.4	10.2
		2	23.8	61.4	10.7
		3	24.5	59.2	10.0
	1,400	1	25.3	60.0	10.0
		2	26.2	60.9	10.4
		3	27.1	58.7	9.7

繁育母牛围产管理要点

围产母牛圈舍管理

1. 适当密度，减少群体应激
2. 提供防控热应激条件
3. 考虑冷应激的影响



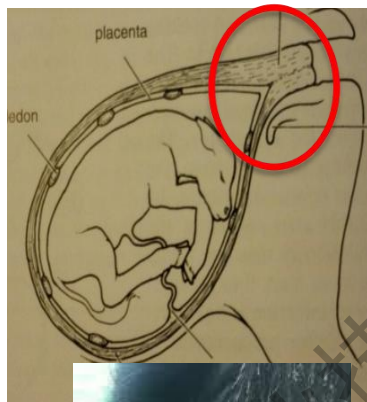
繁育母牛分娩管理



分娩过程管理

第一产程：产道准备期

- 产道松弛
- 持续6-8h



第二产程：胎儿娩出期

- 犊牛产出
- 持续半个小时到3个小时
- 青年牛更长



第三产程：胎衣排出

- 通常在2-8小时之内

分娩及接产管理



VS



明确何时需要检查

- 第一产程长于8h。即出现临产症状超过8小时，但是不努责。
- 2蹄2小时原则：即尿囊或犊牛蹄子露出后2h，犊牛仍未娩出时；
- 母牛剧烈努责，但20-30分钟后仍没有任何进展时；
- 母牛频繁努责后，停止30分钟以上没有动静时；
- 母牛身体异常，如阴门流血或明显虚弱无力时；

检查前必须进行后驱清洁和消毒

- 必须将牛保定，检查的地点最好和助产地点相同。
- 将牛尾和一侧牛腿栓系。
- 清除肛门周围的污粪，用肥皂水彻底清洗后躯，然后用碘或氯制剂消毒
- 人必须戴长臂手套，消毒手臂并涂润滑剂。

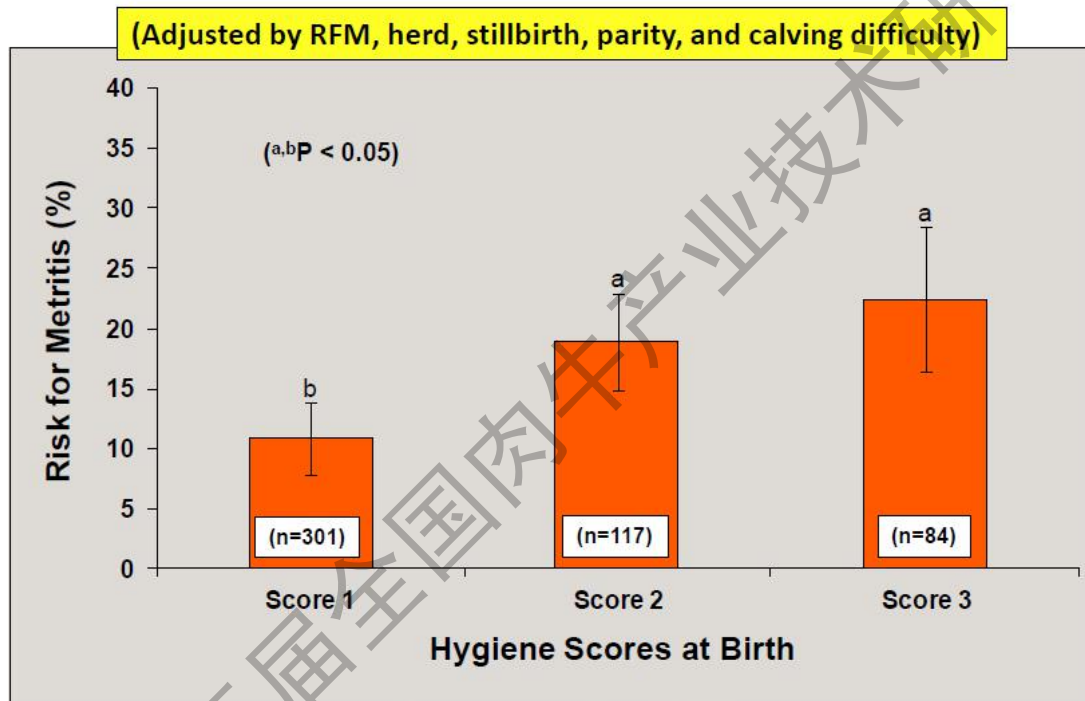


注意卫生

- 使用干净的一次性长臂手套
- 使用干净的水或者肥皂水冲洗阴门，如果奶牛排便，要重复清洗
- 使用助产链前后注意消毒



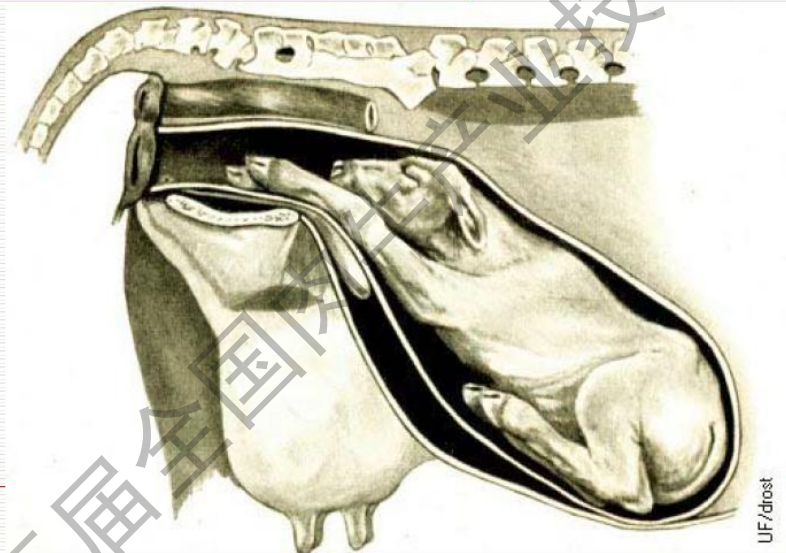
后驱清洁度与产后子宫炎风险关系



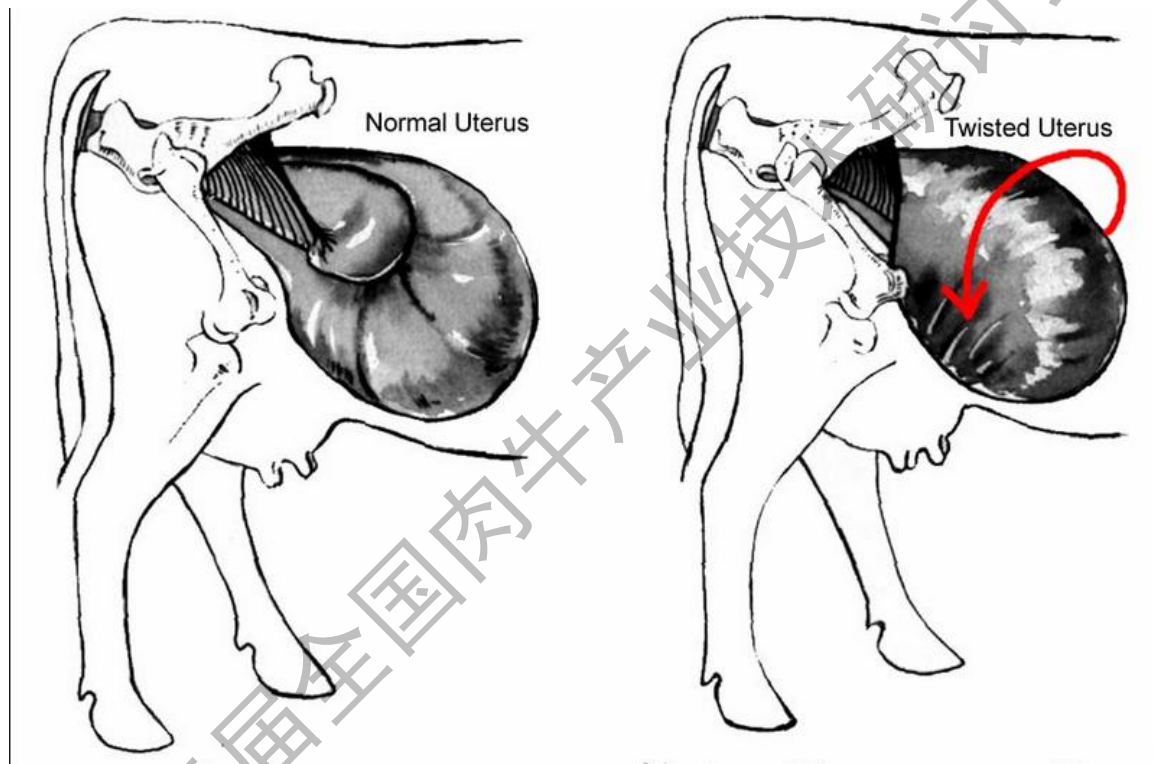
(Schuenemann et al., 2011b; JDS 94:744)

助产技巧

Normal presentation, position, and posture



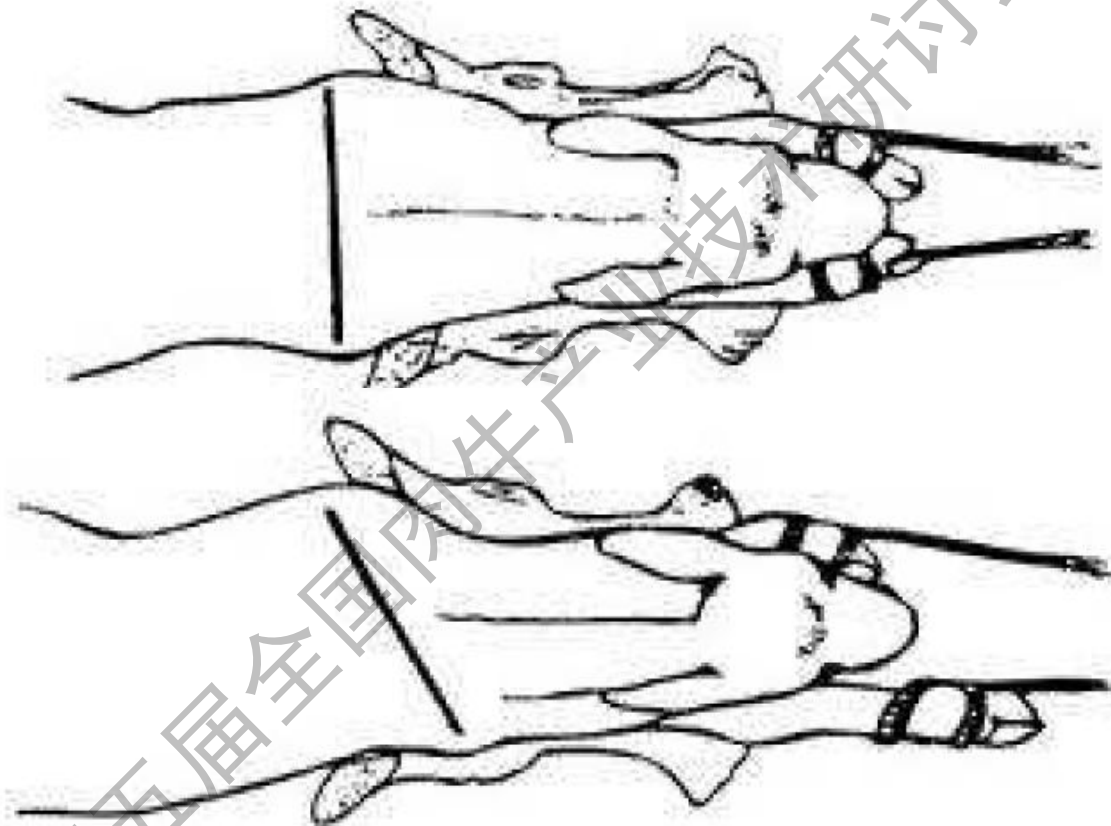
子宫扭转



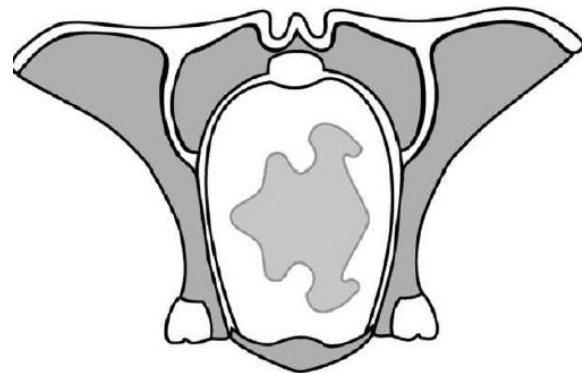
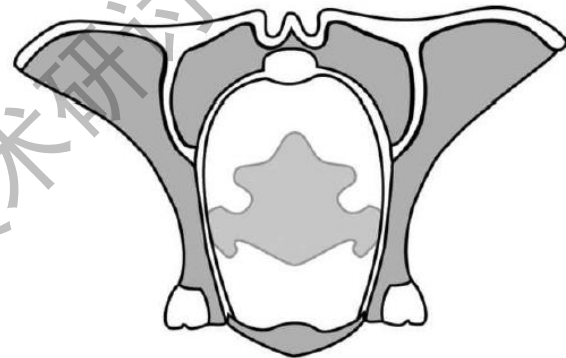
头部嵌顿



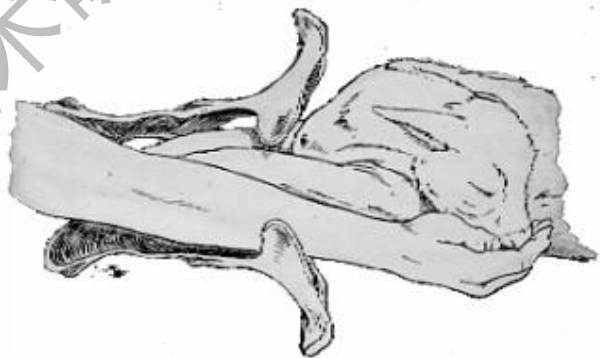
肩部嵌顿



髁部嵌顿



头部未进入产道

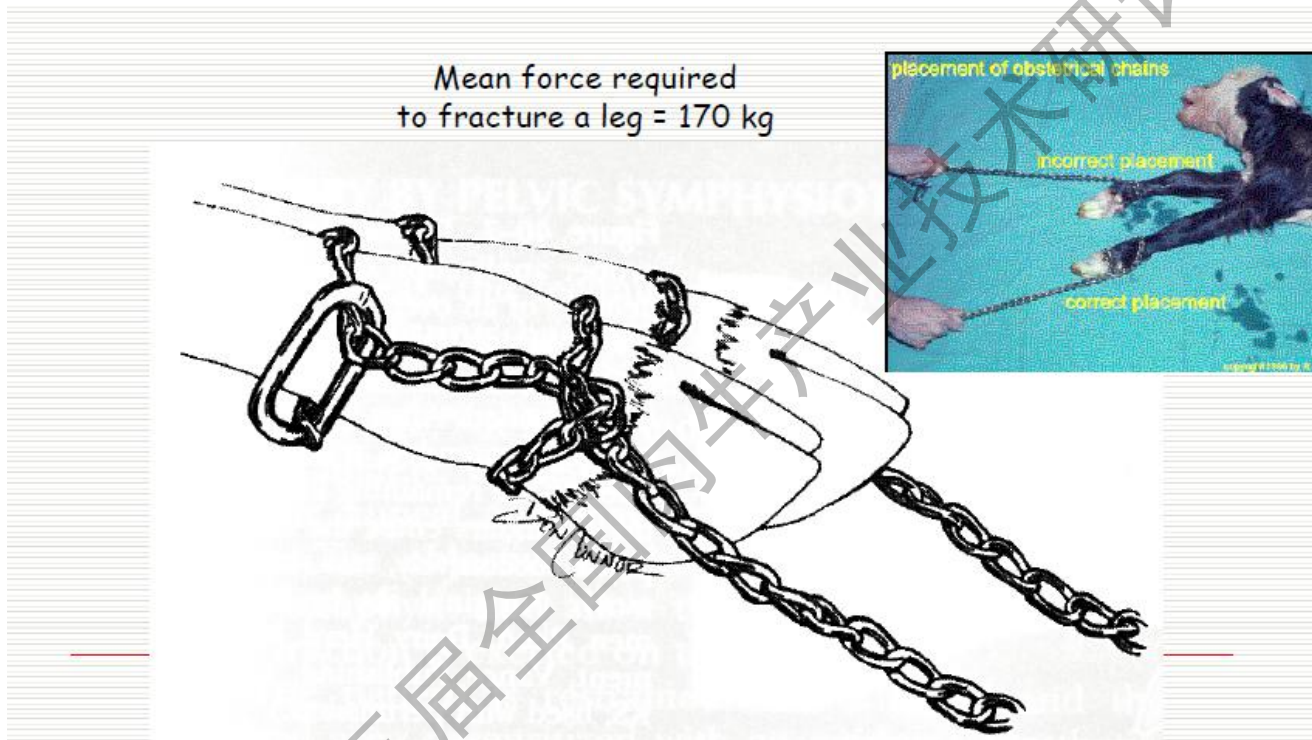


倒生



Figure 4: Sequence of delivery of calf in backward with normal position and posturing

注意助产链栓系方式





产后立刻

切勿将犊牛倒挂

可以选择，将犊牛脑袋自由摆放在低于胸部的位置，以便通过体位引流。

或使用特殊装置帮助犊牛清除口腔粘液和促使自主呼吸



刺激呼吸

针刺犊牛鼻头中部或用力掐鼻中隔来刺激犊牛
牛吸气

向犊牛头部或耳部泼凉水来刺激犊牛打喷嚏



保持体温



新生犊牛生理

在限定时间内犊牛应该能够做到如下：

- 3 min: 抬头
- 5 min: 坐起
- 20 min: 尝试站起
- 60 min: 站立
- 2 hours: 吸乳

正常指标

- 体温: 38.3-38.9 C
- 心跳: 90-160 bpm
- 呼吸频率: 50-75 bpm



犊牛危重信号

- 1) 坐起的时间推迟
- 2) 不正常的呼吸频率
- 3) 胎粪着色
- 4) 黏膜淡蓝色或发绀
- 5) 虹膜或结膜出血
- 6) 舌头或脑袋水肿



组织缺氧

组织供氧不足

脐带断裂过早

- 胎盘停止血氧供应
- 收缩延迟
- 强行助产时损伤

导致酸中毒

犊牛表现为：呼吸频率极快，喘

50-100ml的8.4%碳酸氢钠可以帮助
提升呼吸状况

新生犊牛活力评估表

Table 1. VIGOR score sheet.

Score	Visual Appearance			
	0	1	2	3
1. Meconium staining	Normal: no staining	Slight: around anal/tail head area	Moderate: extending over body	Severe: completely covered
2. Tongue/head	Normal (no swelling, tongue not protruding)	Tongue protruding but not swollen	Tongue protruding and swollen	Head and tongue swollen, tongue protruding
Initiation of Movement				
3. Calf movement	Standing/walking	Attempts to stand	Sternal	On side, no efforts to rise
Taken within	0 - 30 min	30 min - 1.5 h	1.5 h - 3 h	> 3 h
General Responsiveness				
4. Head shake in response to straw in nasal cavity	Shakes head vigorously	Moves head away	Twitches or flinches	Does not respond
5. Tongue pinch	Actively withdraws tongue	Attempts to withdraw	Twitches tongue	Does not respond
6. Eye reflex (in response to touching eyeball)	Actively blinks and closes eye	Slow to blink	Does not respond	-
Oxygenation				
7. Mucous membrane colour	Bright pink	Light pink	Brick red	White/blue
8. Length of tongue*	< 50 mm	50 - 61 mm	> 62 mm	-
Rates				
9. Heart rate†	80 - 100 bpm	> 100 bpm	< 80 bpm	-
10. Respiration rate‡	~ 24- 36 bpm	~ 24 bpm	~ > 36 bpm	-

*Measure from lips. Record this measurement only if within 5 minutes of calving.

†Place hand on the calf's chest. Take pulse for 15 seconds then multiply by 4 to get beats per minute (bpm).

‡View and/or place hand on the calf's abdomen to count the approximate number of breaths for 15 seconds and multiply by 4 to get breaths per minute (bpm).

A field study to evaluate the effects of meloxicam NSAID therapy and calving assistance on newborn calf vigor, improvement of health and growth in pre-weaned Holstein calves

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结论

Table 6. Effects of treatment with meloxicam and placebo on serum total protein (STP), VIGOR score, health scores, weight gain, and height growth for all calves in the study (mean±SD).

Variable	Meloxicam	Placebo
N	418	413
STP (g/dL)	5.53±0.76	5.52±0.76
VIGOR	2.24±2.79	2.28±2.74
Health scores		
Week 1	0.98±0.61	1.06±0.70
Week 2	1.25±0.82	1.30±0.92
Week 3	0.99±0.83	1.05±0.90
Week 6	0.39±0.76	0.38±0.75
Total	3.60±1.83	3.76±2.02
Weight gain (kg)		
Week 1 gain	3.23±4.00	3.11±4.02
6 week gain	29.52±9.88	29.46±10.39
ADG	0.75±0.24	0.75±0.25
Height growth (cm)		
Week 1 growth	1.98±2.06	1.83±1.91
6 week growth	9.58±3.02	9.27±3.38

美洛昔康

- 研究显示给难产犊牛注射1ml美洛昔康可以提高活力和吸乳反射
- 注射美洛昔康的犊牛首周增重更高
- 青年牛产犊和难产非常疼痛 (fractured ribs, inflammation, etc)
- 推荐给所有青年牛产犊牛和助产过的犊牛注射

Bovine Practitioner 2015; 49:1-12



早期处理 - 脐带消毒

脐带消毒:

✓最少重复2次

✓7% 碘酊/氯制剂

✓只对清洁的脐带进行消毒,



初乳管理

Colostrum Management Fundamentals

- 1) Quality/质量
- 2) Quantity /数量
- 3) Timing /时间
- 4) Cleanliness/清洁



关键控制点-初乳管理

被污染的初乳是主要的传染源(特别是含有都柏林沙门氏菌)

初乳混合增加了传播的风险

确保初乳的收集是干净的并且迅速冷却

考虑应用代初乳粉或初乳巴杀

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Q&A

谢谢!!!

